

CLAIMS

It is claimed:

1. An emission inventory system for use in a coating operation for application of a coating material within an application area during said coating operation, one or more
5 containers for storing said coating material prior to said application of said coating material, emissions being produced during said application of said coating material, said emission inventory system comprising:

a coating material measurement assembly for measuring at least one physical
10 phenomenon related to an amount of said coating material utilized during said coating operation; and

a control mechanism operable for determining when said coating material measurement assembly is ready for measuring said at least one physical phenomenon related
15 to said amount of coating material utilized during said coating operation, said control mechanism being operable for controlling said application of said coating material to permit said coating operation to proceed when said coating material measurement assembly is ready for measuring said at least one physical phenomenon related to said amount of coating material utilized during said coating operation, said control mechanism being operable for
20 automatically preventing said application of said coating material from proceeding until said

coating material measurement assembly is ready for measuring said at least one physical phenomenon related to said amount of coating material utilized during said coating operation.

- 5 2. The emission inventory system of claim 1 wherein said control mechanism is responsive to at least a selected positioning of said one or more containers for determining when said coating material measurement assembly is ready or not ready for measuring said at least one physical phenomenon related to said amount of coating material utilized during said coating operation.

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3. The emission inventory system of claim 1 further comprising an interface for entering coating material data comprising information concerning said coating material.

- 15 4. The emission inventory system of claim 3 wherein said control mechanism is responsive to said interface for determining when said coating material measurement assembly is ready for measuring said at least one physical phenomenon related to said amount of coating material utilized during said coating operation.

- 20 5. The emission inventory system of claim 3 wherein said coating material measurement assembly comprises a scale, said scale being operable for determining

a change of weight of said coating material within said one or more containers during said coating operation which is related to amount of coating material utilized during said coating operation.

5 6. The emission inventory system of claim 3 further comprising one or more processors responsive to said coating material data from said interface and said coating material measurement assembly for providing reports of coating material usage.

7. The emission inventory system of claim 3 further comprising one or more processors
10 responsive to said coating material data from said interface and said coating material measurement assembly for providing reports of emissions produced by said coating operation with respect to selective time intervals.

8. The emission inventory system of claim 1 further comprising one or more processors
15 operable for providing EPA reports.

9. The emission inventory system of claim 1 further comprising at least one sprayer, a flow passageway in fluid communication with said at least one sprayer, said control mechanism comprising one or more valves to either permit or prevent fluid flow to
20 said at least one sprayer.

10. An emission inventory system for use in a coating operation, at least one applicator for applying one or more coating materials within a application area during said coating operation, one or more containers for storing said one or more coating materials prior to said applying of said one or more coating materials, emissions
5 being produced during said applying of said coating material, said emission inventory system comprising:

a coating material measurement assembly for measuring at least one physical phenomenon related to an amount of said one or more coating materials utilized during said
10 coating operation;

a flow control mechanism;

an interface for entering coating material data relating to a selection of said one or
15 more coating materials for said coating operation; and

one or more processors operable with said coating material said flow control measurement assembly, said flow control mechanism, and said interface.

11. The emission inventory system of claim 10 wherein said one or more processors is programmed to control flow of said one or coating materials to said one or more applicators.
- 5 12. The emission inventory system of claim 10 wherein said one or more processors is programmed for monitoring the amount of time of said flow of said one or more coating materials.
- 10 13. The emission inventory system of claim 10, further comprising a compressed air source, an input flow line to said one or more containers, and one or more flow lines to said at least one applicator, said flow control mechanism comprising one or valves controlled by said one or more processors.
- 15 14. The emission inventory system of claim 10 wherein said one or more processors is programmed for recording data related to said flow control measurement assembly, said flow control mechanism, and said interface for producing reports of pollutant emissions on a time interval basis.

15. A method for providing an inventory of emissions from coating operations, comprising:

providing one or more coating materials into one or more containers;

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providing one or more spray tip flow lines from said one or more containers to at least one spray tip within at least one spray area;

entering identification information for said one or more coating materials with one
10 or more electronic input devices;

activating one or more flows of said one or more coating materials to said at least one spray tip through said one or more spray tip flow lines;

15 monitoring said one or more flows of said one or more coating materials to said at least one spray tip through said one or more spray tip flow lines;

stopping said one or more flows of said one or more coating materials to said at least one spray tip; and

providing one or more processors programmed for collecting computer data during said one or more flows of said one or more coating materials and for storing computer data related to one or more time intervals of said one or more flows of said one or more coating materials, and said identification information for said one or more coating materials, and a
5 respective amount of said one or more coating materials utilized.

16. The method of claim 15, further comprising electronically generating at least one of a material usage report or an emission report based on said computer data.

10 17. The method of claim 15, further comprising providing one or more sensors for said electronically monitoring said one or more flows of said one or more coating materials to said at least one spray tip through said one or more spray tip flow lines, determining whether said one or more sensors are ready for said step of electronically monitoring said one or more flows of said one or more coating materials to said at
15 least one spray tip through said one or more spray tip flow lines, and if said one or more sensors are not ready then automatically preventing said activation or automatically stopping said one or more flows of said one or more coating materials to said at least one spray tip through said one or more spray tip flow lines.

18. The method of claim 15, further comprising monitoring a weight of said one or more containers.
19. The method of claim 15 further comprising programming said one or more
5 processors to calculate at least one of volatile organic compounds or hazardous air pollutant emissions over a selected period of time.
20. The method of claim 15 wherein said step of electronically monitoring said one or more flows of said one or more coating materials to said at least one spray tip
10 through said one or more spray tip flow lines further comprises monitoring a weight of said one or more containers.